

What is claimed is:

1. A uncoated fabric for airbags, which is produced by a method comprising the steps of:

5 (A) weaving a low shrinkage polyamide fiber having a dry heat shrinkage of 3-6% (at 190 °C for 15 minutes) into a grey fabric for airbags;

10 (B) heat-shrinking the grey fabric by successively passing it through 3-10 aqueous baths, the temperature of each of which is 5-20 °C higher than that of the preceding aqueous bath;

15 (C) additionally heat-shrinking the fabric from the aqueous baths by passing it through a steam heater; and

16 (D) drying the fabric from the steam heater by passing it through a hot air drier.

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2. The uncoated fabric for airbags of Claim 1, wherein the grey fabric for airbags in the step (B) is first passed through an aqueous bath of 50 °C and then successively passed through 5 aqueous baths, the temperature of each of which is 10 °C higher than that of the preceding aqueous bath.

20 3. The uncoated fabric for airbags of Claim 1, wherein the temperature of the steam heater in the step (C) is 150-220 °C.

4. The uncoated fabric for airbags of Claim 1, wherein the fabric inlet of the hot air drier in the step (D) has a temperature of 140-160°C, and the temperature of the fabric outlet of the hot air drier is 30-70 °C higher than that of the
5 fabric inlet.

5. The uncoated fabric for airbags of Claim 1, which has a tensile strength of 200-300 kg, a tear strength of 25-40 kg and an air permeability of less than 1.0 cm³/cm²/sec.

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6. A low shrinkage polyamide fiber, which is produced by a method comprising the steps of:

(A) melt-extruding a polyhexamethyleneadipamide polymer through a spinneret at a temperature of 270-320 °C, the polymer
15 containing hexamethyleneadipamide repeat units at the amount of at least 85 mol% and having a relative viscosity of 2.5-4.0;

(B) quenching and solidifying the extruded polymer below the spinneret by means of cooling gas to form an undrawn yarn, and taking-up the undrawn yarn at a rate of 200-1,000 m/min; and

20 (C) subjecting the undrawn yarn to multi-stage drawing to a total draw ratio of at least 4.0, heat treatment and relaxation to form a drawn yarn, and winding the drawn yarn.

7. The low shrinkage polyamide fiber of Claim 6, which satisfies the following physical properties: (1) a dry heat shrinkage of 3-6% (at 190 °C for 15 minutes), (2) a tenacity of at least 9.0 g/d, (3) an elongation of at least 20%, (4) a birefringence of less than 0.065, and (5) a fineness of 200-1,000 deniers.

8. The low shrinkage polyamide fiber of Claim 6, which has a total fineness of 630 deniers.

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9. The low shrinkage polyamide fiber of Claim 6, which has a total fineness of 420 deniers.

10. The low shrinkage polyamide fiber of Claim 6, which has a total fineness of 210 deniers.

11. The low shrinkage polyamide fiber of Claim 6, wherein the residual time of the polymer in a spinning pack containing the spinneret in the step (A) is 3-30 seconds.

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12. The low shrinkage polyamide fiber of Claim 6, wherein the relaxation temperature of the drawn yarn in the step (C) is 200-260 °C, and the percent relaxation of the yarn is 2-7%.

13. The low shrinkage polyamide fiber of Claim 6, wherein
the total draw ratio of the yarn in the step (C) is 4.5-6.5.

14. The low shrinkage polyamide fiber of Claim 6, wherein
5 the first drawing of the multi-stage drawing in the step (C) is
performed at a temperature of 20-50 °C.

15. The low shrinkage polyamide fiber of Claim 6, wherein
the second drawing of the multi-stage drawing in the step (C) is
10 performed at a temperature of 200-250 °C.

16. The low shrinkage polyamide fiber of Claim 6, wherein
the first drawing of the multi-stage drawing in the step (C) is
performed at a draw ratio of at least 3.0.

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17. The low shrinkage polyamide fiber of Claim 6, which has
a monofilament fineness of 3-7 deniers.